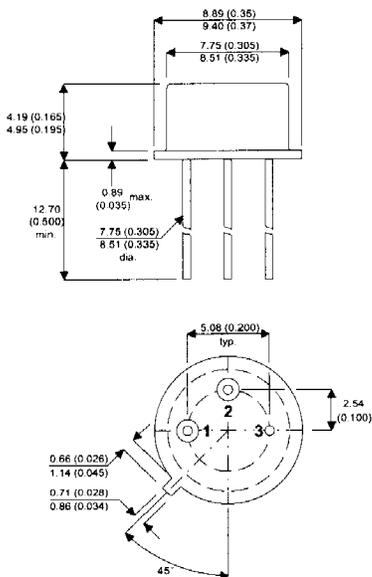


**MECHANICAL DATA**

Dimensions in mm (inches)



**TO39 PACKAGE**

**Underside View**

Pin 1 = Emitter    Pin 2 = Base    Pin 3 = Collector

**SILICON NPN  
PLANAR TRANSISTOR**

**FEATURES**

- $V_{CBO} = 100V$
- $V_{CEO} = 60V$
- $I_C = 2A$

**DESCRIPTION**

General Purpose NPN Transistor in a Hermetic TO39 Package

**ABSOLUTE MAXIMUM RATINGS** ( $T_{case} = 25^{\circ}C$  unless otherwise stated)

$V_{CBO}$	Collector - Base Voltage (open emitter)	100V
$V_{CER}$	Collector - Emitter Voltage ( $R_{BE} \leq 50\Omega$ )	80V
$V_{CEO}$	Collector - Emitter Voltage (open base)	60V
$V_{EBO}$	Emitter - Base Voltage (open collector)	5V
$I_C$	Collector Current (d.c.)	2A
$I_{CM}$	Collector Current (peak value)	5A
$I_B$	Base Current (d.c.)	1A
$P_{TOT}$	Total Device Dissipation @ $T_C = 50^{\circ}C$	5W
$T_{stg.}$	Storage Temperature	-55 to 175°C
$T_j$	Junction Temperature	175°C / W
$R_{thj-c}$	Thermal Resistance Junction to Case	25°C / W



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

# BSV64

## ELECTRICAL CHARACTERISTICS (T<sub>case</sub> = 25°C unless otherwise stated)

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
V <sub>CEsat</sub>	Collector – Base Saturation Voltage	I <sub>C</sub> = 5A	I <sub>B</sub> = 5A			1	V
V <sub>BEsat</sub>	Emitter – Base Saturation Voltage	I <sub>C</sub> = 5A	I <sub>B</sub> = 5A			1.8	
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> = 60V	I <sub>E</sub> = 0			10	μA
I <sub>EBO</sub>	Emitter Cut-off Current	V <sub>EB</sub> = 4V	I <sub>C</sub> = 0			10	
h <sub>FE</sub>	DC Current Gain	V <sub>CE</sub> = -5V	I <sub>C</sub> = 2A	40			—
c <sub>c</sub>	Collector Capacitance at f = 1MHz	I <sub>E</sub> = I <sub>e</sub> = 0	V <sub>CB</sub> = 10V			80	pF
f <sub>T</sub>	Transistion Frequency at f = 35MHz	I <sub>C</sub> = 0.5A	V <sub>CE</sub> = 5V		100		MHz
ton	Turn on Time	I <sub>Con</sub> = 5A; I <sub>Bon</sub> = -I <sub>Boff</sub> = 0.5A				0.6	μs
toff	Turn off time	-V <sub>BEoff</sub> = 2V				1.2	